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Food adulteration: Pakistan on the verge of nutritional crisis

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ABSTRACT

Food adulteration is a new-fangled marketing strategy for many suppliers who increase their product's sale by mixing or treating food with adulterants which is profitable but risks human health. Vegetables, fruits, meat, milk four primitive food items used in daily life by all the standard of living is compromised nowadays. A seemingly healthy food which is supposed to augment growth and development of the human body in reality gives catastrophic effects on the health. This opinion highlights these factors and focus on the need to avoid indulging in such practices in Pakistan as the country is on the verge of a nutritional crisis due to food adulteration.

Keywords: Food adulteration; Pakistan; human health

1. INTRODUCTION

Adulteration means to exploit, debauch, or make impure by the addition of an inferior quality substance to prepare the product for better sale by replacing more beneficial with less valuable or idle ingredients (Merriam-Webster). Food adulteration is common and undistinguishable nowadays.

The general perception of Pakistan consumable market reckons approximately every raw consumable product used is not only of low quality but has detrimental effects on human health. It can be said that apart from few, the raw consumables for cooking purpose to processed or final finished form available in market are adulterated for most part. (The Pakistani Spectator, 2012 and Pakistan State Times, 2013). It is an irony that Pakistan being ranked in the list of top milk producing countries of the world, yet the country's population yearns for the pure form for their own consumption and risk their lives since they have to consume the adulterated form of milk (Dawn.com, 2014).

The situation has worsen which has plunged the country towards the abyss of a nutritional crisis and the authorities need to focus on the issue as half of the population of the country appears malnourished, the matter needs to be countered with strong footing otherwise the results would be detrimental (Xinhua English, 2010).

2. DISCUSSION

Pakistan is on the verge of nutritional crisis due to the prevailing food adulteration. Vegetables and fruits that are part of routinely used food is adulterated in so many ways that benefits of consuming them has faded by the harmful effects of growth promoting phyto-hormone injections which are

routinely injected by farmers to produce more number in short time to cope up the demand. Besides, the use of waxes to coat the vegetables to make them more appealing and fresh is also employed. Artificial colors are also used to coat and falsify the appearance of the consumable item and to sooth the eyes of buyer (Rajan WN, 2010).

Artificial fruit ripening is also one of strategy which has been set by the marketers to increase sale and availability of fruits in almost every season. Calcium carbide which is colorless compound if pure when reacts with water releases carbide gas which ripens the fruit more quickly is banned under FPA and Food Safety standards rules because of its tendency of having the traces of arsenic and phosphorus hydride is still in use to quicken the process of ripening of fruits (Food and Safety Standard Authority India, 2011). Calcium carbide causes various health hazards like, headache, dizziness, mood disturbances, sleepiness, mental confusion, memory loss, cerebral edema and seizures. It can also be a cause of cancer (Asif, 2012).

The phenomenon has also plagued the poultry raisers in the country as they started to inject steroids to chickens to boost the growth and speed up the developmental period for which is normally 45 days to a swift 35 days period. This technique was beneficial for those involved in the poultry business by minimizing the time to raise the seemingly healthy chickens. Studies have clearly shown that the injected part of chicken's body contains high proportion of steroids which have unhealthy and noxious effects on human health on long run. Some studies have also concluded that these drugs have more intense effects in presence of female hormones and can lead women prone to develop cyst in ovaries (Tempo, 2011).

Same phenomenon is replicated in the large meat producing animals such as cattle. Like the use of muscle building androgens by the human athletes, which cause serious damage in the endocrine system but providing artificial musculature body which appears healthy but is actually unwell from within (Muhammad Hassan Khan and Atta Abbas, 2014). The androgens injections are used by cattle farmers to increase the bulk musculature of cattle to produce more meat. Some cattle receive estrogen, progestin and other semi androgenic substances which are harmful for the cattle's endocrine system as they stop the reproductive cycle and save all the energy and divert it to build muscles. The traces of these drugs are passed to humans when they consume the meat (Janet Raloff, 2002).

The milk from cows injected with steroids cause low immunity level in humans, leading to several diseases. Such animals are given steroids to produce more milk. Further to this, steroid injections are known to speed up the process of fowl or calf birth in animals (The Dairy Site, 2007).

Addition of water is a technique used by the sellers to increase the bulk of milk and beneficial in terms of revenue however is an adulteration technique as the milk when diluted, the enzymatic activity decrease. Formaldehyde is also added in milk as a preservative which is documented to have serious toxic effects on human health as it produces aldehyde containing compounds and causes toxic syndrome. Milk fat is natural source of getting high quality fatty acids which are further utilized in making of creams and other dairy products. People separate the cream from milk and adulterate it with vegetable fat which is unsaturated. When exposed to air, it becomes rancid and is toxic for liver and can cause liver cirrhosis (Pak Dairy Info).

3. CONCLUSION

The health regulatory agencies should take steps to curb the food adulteration and malpractice and formulate legislation and guidelines for the said purpose.

CONTRIBUTION OF THE AUTHORS

Both authors contributed to the article in equal aspects, read and approved the final manuscript.

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Ethical issues

Not applicable.

Informed consent

Not applicable.

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Conflict of Interest

The author declares that there are no conflicts of interests.

Data and materials availability

All data associated with this study are present in the paper.

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